

Automatic Broaching Lines and (Cont.)

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1. Institut geologii Arktiki (for all). 2. Chlen-korrespondent  
Akademii nauk SSSR (for Saks).  
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Results of specific research in the Bol'shoy Begichev Island  
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45-52 '59. (MIRA 13:11)

(Bol'shoy Begichev Island--Geology, Stratigraphic)

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Preparation of trimethylfuranylammonium salts. (2)  
 Kuznetsov-Borisev, I. M., Yurina, and B. D. Yudin, *Chem. Abstr.*  
 J. P. Pavlov 1st Med. Inst., Leningrad. *Sov. Khim.* 24, 2056 (1954).--Furfurylamine (9.7 g, 0.1 mole) in 100 ml. H<sub>2</sub>O treated with 15 g. powdered K<sub>2</sub>CO<sub>3</sub>, then extracted with 50 g. MeI at 15-20°. The excess MeI distill off at 40-50°, the residue steam distill, evaporated, and left over in HCl, and the ext. treated with H<sub>2</sub>OAc or H<sub>2</sub>SO<sub>4</sub> gave trimethylfuranylammonium salts, m. 118-119°. Quant. yield. Me<sub>2</sub>SO, and 11 furfurylamine in the presence of K<sub>2</sub>CO<sub>3</sub> gave, in 1 hr. at 40-50°, 65-70% trimethylfuranylammonium methyl sulfate, m. 56-71° also obtained from the salt by with Me<sub>2</sub>SO. H<sub>2</sub>SO<sub>4</sub>Me<sub>2</sub> similarly gave 30% trimethylfuranylammonium benzene sulfonate, m. 135-136° (from EtOH H<sub>2</sub>OAc). G. M. Kuznetsov

SKOMOROVSKIY, Ya.Z., kand. tekhn. nauk; TRUKH, A.P.; TUDOVSKIY, D.G.

Determining the true angle of rotation of a pipeline layed on  
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Random numbers transducer used for solving boundary value problems by mathematical statistics in the development of oil and gas reservoirs. Izv. vys. ucheb. zav.; neft' i gaz 7 no.3:103-105 '64. (MIRA 17:6)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M. Gubkina.

ACC NR: AT6017642

(A)

SOURCE CODE: UR/2982/65/000/058/0017

AUTHOR: Yudovskiy, O. V.

48  
Br1

ORG: None

TITLE: Random number generators with automatic correction

SOURCE: Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti. Trudy, no. 58, 1965. Elektronika i vychislitel'naya tekhnika v neftyanoy, gazovoy i khimicheskoy promyshlennosti (Electronics and computer engineering in the petroleum, gas and chemical industry), 77-79

TOPIC TAGS: computer technology, random noise signal, number, noise generator, computer component

ABSTRACT: The author describes two systems for generating random numbers with automatic correction. In the first system (see figure 1) a noise signal is sent from  $\text{NW}$  through amplifier  $\text{Y}$  to the input of shaper  $\Phi$ . The square pulses from the shaper are fed to the input of rectifier  $\text{P}$  which is closed until control pulses are received from the generator  $\text{M}$ . The arrival of a control pulse opens rectifier  $\text{K}$  and a random number is formed in register  $\text{P}$  in a time interval  $\Delta t$  determined by the duration of the control pulse. The value of the resultant number is determined by elementary logic circuit  $\text{CO}$  and a pulse is sent to counter  $\text{C4}_1$  or  $\text{C4}_2$  depending on whether the number

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falls in the first or last interval for division of the section. Numbers which do not fall into either of these sections are thrown out. The cycle is repeated until the entire sample  $n$  has been taken, and a control pulse is then fed from the sampling counter  $C_3$  to counters  $C_1$  and  $C_2$  which send control signals to comparator  $C$  proportional to the weights of the digital places in the counters. A control signal is sent from this comparator to the grid of the shaper tube which increases or reduces the level of the noise signal necessary for forming the square pulses. The second system (see figure 2) is designed for generating random numbers according to a predetermined arbitrary distribution law. A variational series of numbers distributed according to the given law is periodically generated in the form of a voltage curve by generator  $\Gamma_3$ . A number generator with homogeneous distribution ( $\Delta C_{pp}$ ) is used for random and equally probable sampling of amplitudes on the voltage curve. The uniformly distributed numbers are fed to counter  $C_4$ . Various numbers of cadence pulses from generator  $\Gamma_4$  are required for overfilling counter  $C_4$  depending on the magnitude of the number fed to the counter. The pulse generator is started simultaneously with generator  $\Gamma_3$  after formation of the number in counter  $C_4$ . Thus the time intervals from triggering of generator  $\Gamma_4$  to the appearance of the overfill unit in counter  $C_4$  are random quantities uniformly distributed with respect to the time interval. The overfill unit in counter  $C_4$  opens rectifier  $K$  at random moments. This means that when time  $\tau$  for generation of the voltage curve coincides with the time  $\tau'$  necessary for filling empty counter  $C_4$ , a voltage with a definite magnitude appears at the output of rectifier  $K$  at the moment when it opens. If the process is repeated  $N$  times, there

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are  $N$  randomly distributed equally probable voltages produced by generator ГЗ. The continuous random quantities may be changed to discrete form by voltage-to-code converter HK and fed to buffer register БР. Control pulse ИУ triggers the device. Orig. has: 2 figures.

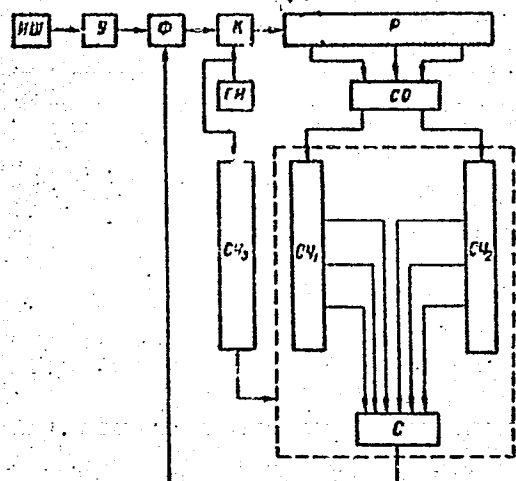


Figure 1. Block diagram for the random generator with homogeneous distribution: ИУ--noise source; У--amplifier; Ф--shaper; К--rectifier; П--control pulse generator; СЧ<sub>1</sub> and СЧ<sub>2</sub>--number counters; СЧ<sub>3</sub>--sample space counter; С--comparator; СД--device for evaluating the magnitude of the number.

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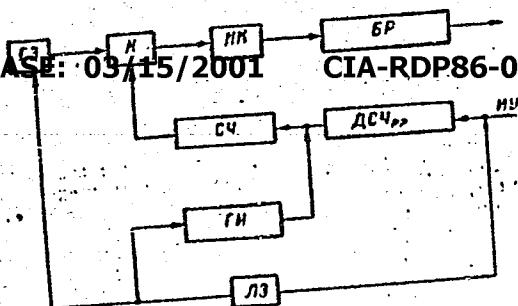


Figure 2. Block diagram of the system for generating random numbers according to a predetermined arbitrary distribution law: ГЗ--voltage generator; К--rectifier; П--control pulse generator; БР--buffer register; СЧ--counter; ДСЧпп--generator for homogeneously distributed random numbers; ГИ--cadence pulse generator; ЛЗ--delay line; ИУ--control pulse.

SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 000

YUDOVSKIY, Oleg Vladislavovich, aspirant

Transducer of random numbers. Izv. vys. ucheb. zav.; elektromekh.  
7 no.5:607-611 '64. (MIRA 17:9)

1. Kafedra elektroniki i vychislitel'noy tekhniki Moskovskogo  
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1013-1020 My '61. (MIRA 16:8)

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IVANOV, Ye.; YUDOVSKIY, V.

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(MIRA 12:12)

(Valuation) (Bunich, P.) (Goralik, V.) (Anisimov, V.)  
(Ostroumov, V.)

*Yudson, A.A.*

133-2-4/19

AUTHORS: Borodin, V.P., Darmanyan, P.E., Yudson, A.A. and Vasil'yev, A.V. (Engineers)

TITLE: A Four-Period System of the Complex Automatic Control of Thermal Conditions of a Fuel-Oil Fired Open Hearth Furnace (Chetyrekhperiodnaya skhema svyazannogo avtoregulirovaniya teplovogo rezhima mazutnoy martenovskoy pechi)

PERIODICAL: Stal', 1958, Nr 2, pp.114-120 (USSR)

ABSTRACT: A scheme of automatic control of thermal conditions of oil-fired open hearth furnaces developed by the Central Laboratory of Automation and installed on the Nr 10 furnace of the above works is described. The scheme operates according to four programmes corresponding to four technological periods of the smelting process. Programme 1 includes a considerable part of the charging period and two thirds of the melting period; it is switched on by a motor relay of time, operated by photorelay during the tapping of steel. Programme 2 includes the remaining part of the smelting period; it is switched on by a motor relay of time operated when a stable excess in the preset roof temperature is attained. Programme 3 includes the refining period and is switched on by a motor relay of time operated at the moment of tapping slag. Programme 4 includes the fettling period

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133-2-4/19

A Four-Period System of the Complex Automatic Control of Thermal Conditions of a Fuel-Oil Fired Open Hearth Furnace.

and the beginning of the charging period of the next heat. Changing of programmes can also be hand operated. The scheme is shown in Fig.1. Fuel consumption is controlled according to the temperatures of the roof and regenerators. The following parameters are controlled: consumption of fuel oil, air-fuel ratio, amount of compressed air used in the atomiser, pressure of gases in the furnace, reverses, waste gas temperature at the bottom of the regenerators and draught in the waste gas flue. Characteristic data on the furnace on which the scheme was operated, operating practice and operating results are briefly described. The scheme operated satisfactorily, but the final conclusion regarding the efficiency of the scheme can be made only after an analysis of operating results of a few furnace campaigns. There are 9 figures.

ASSOCIATION: "Krasniy Oktyabr" Works and TsLA (Zavod "Krasnyy Oktyabr" i TsLA)

AVAILABLE: Library of Congress.

Card 2/2

KUDRIK, V.A.; OYKS, G.N.; SCROKIN, S.P.; NECHNIK, Yu.M.; GLUSHTAYN, V.M.;  
HAM, B.P.; LAPSHOVA, M.P.; YUDSKH, A.A.; PETELNYK, G.I.;  
ADRIANOVA, V.P.

Smelting high-grade steel in open-hearth furnaces fired with  
natural gas. Stal' 20 no. 7:599-602 J1 '60. (MIRA 14:5)  
(Open-hearth furnaces--Equipment and supplies)

YUDSON, A. A.

8J

PHASE I BOOK EXPLOITATION

SOV/5556

Moscow. Institut stali.

Novoye v teorii i praktike proizvodstva martenovskoy stali (New [Developments] in the Theory and Practice of Open-Hearth Steelmaking) Moscow, Metallurgizdat, 1961. 439 p. (Series: Trudy Mezhvuzovskogo nauchnogo soveshchaniya) 2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy Institut stali imeni I. V. Stalina.

Eds.: M. A. Glinkov, Professor, Doctor of Technical Sciences, V. V. Kondakov, Professor, Doctor of Technical Sciences, V. A. Knärin, Docent, Candidate of Technical Sciences, G. N. Oyks, Professor, Doctor of Technical Sciences, and V. I. Yavovskiy, Professor, Doctor of Technical Sciences; Ed.: Ye. A. Borko; Ed. of Publishing House: N. D. Gromov; Tech. Ed.: A. I. Karasev.

PURPOSE: This collection of articles is intended for members of scientific institutions, faculty members of schools of higher education, engineers concerned with metallurgical processes and physical chemistry, and students specializing in these fields.

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New [Developments] in the Theory (Cont.)

607/5556

COVERAGE: The collection contains papers reviewing the development of open-hearth steelmaking theory and practice. The papers, written by staff members of schools of higher education, scientific research institutes, and main laboratories of metallurgical plants, were presented and discussed at the Scientific Conference of Schools of Higher Education. The following topics are considered: the kinetics and mechanism of carbon oxidation; the process of slag formation in open-hearth furnaces using in the charge either ore-lime briquets or composite flux (the product of calcining the mixture of lime with bauxite); the behavior of hydrogen in the open-hearth bath; metal desulfurization processes; the control of the open-hearth thermal melting regime and its automation; heat-engineering problems in large-capacity furnaces; aerodynamic properties of fuel gases and their flow in the furnace combustion chamber; and the improvement of high-alloy steel quality through the utilization of vacuum and natural gases. The following persons took part in the discussion of the papers at the Conference: S.I. Filippov, V.A. Kudrin, M.A. Glinkov, B.P. Nam, V.I. Yavovskiy, G.N. Gyks and Ye. V. Chelishchev (Moscow Steel Institute); Ye. A. Kazachkov and A. S. Kharitonov (Zhdanov Metallurgical Institute); N.S. Mikhaylets (Institute of Chemical Metallurgy of the Siberian Branch of the Academy of Sciences USSR); A.I. Stroganov and D. Ya. Povolotskiy (Chelyabinsk Polytechnic Institute); P.V. Umrikhin (Ural Polytechnic Institute); I.I. Pomin (the Moscow "Berp 1 molot" Metallurgical Plant); V.A. Foklev (Central Asian Polytechnic Institute).

Card 2/14

New [Developments] in the Theory (Cont.)

SG7/5556

and M.I. Deylinov (Night School of the Dneprodzerzhinsk Metallurgical Institute).  
References follow some of the articles. There are 268 references, mostly Soviet.

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[V. I. Antonenko participated in the experiments.]

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Dutakov, D.K. [Docent], L.M. Mel'nikov [Engineer], A.M. Mirman, V.D. Budenny, P.P. Babich, and A.I. Sinkovich [Ural Polytechnic Institute, Zavod im. Ordzhonikidze Chelyabinskogo sovmarkhoza - Plant imeni Ordzhonikidze of the Chelyabinsk Sovmarkhoz]. Special Features of Making Steel in Open-Hearth Furnaces With Magnesite-Chromite [Brick] Roofs

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Kudrin, V.A., Yu. M. Rechklin, Ye. I. Tyurin [Candidate of Technical Sciences], and Ye. V. Abrosimov [Moscow Steel Institute]. The Acid Open-Hearth Process

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BORODIN, V.P.; MARCHENKOVSKIY, G.F.; DARMANYAN, P.E.; YUDSON, A.A.;  
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Furnace operations with heat insulated arches. Metallurg 6 no.2:  
15-17 F '61. (MIRA 14:1)

1. Zavod "Krasnyy Oktyabr'" i Vsesoyuznyy nauchno-issledovatel'skiy  
institut metallurgicheskoy teplotekhniki.  
(Open-hearth furnaces) (Refractory materials)

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YUDUSHKIN, N.S.

GOSTEV, B.I., kandidat tekhnicheskikh nauk; USHAKOV, A.D., kandidat tekhnicheskikh nauk; KOBONOVA, T.A., inzhener; AKOPYAN, S.I., kandidat tekhnicheskikh nauk, redaktor; VASIL'YEV, A.V., kandidat tekhnicheskikh nauk, redaktor; KRISTI, M.E., professor, redaktor; L'VOV, Ye.D., professor, redaktor; MALASHKIN, O.M., inzhener, redaktor; YUDUSHKIN, N.S., inzhener, redaktor; MODEL', B.I., tekhnicheskii redaktor.

[Investigating cast iron with spheroidal graphite inclusions and its use for tractor parts] Issledovanie chuguna so sferoidal'noi formoi grafite i primeneniye ego dlia traktornykh detalей. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'stva, 1943. 36 p. (Moscow. Gosudarstvennyi soizyni nauchno-issledovatel'skii traktorny institut [Trudy], no.7) (MLRA 9:1)

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(Cast iron) (Tractor industry)

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AKOPYAN, S.I., kandidat tekhnicheskikh nauk, redaktor; GOSTEV, B.I.,  
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tekhnicheskikh nauk, redaktor; KRISTI, M.K., professor, redaktor;  
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[Investigation of the G-58 gas engine] Issledovanie gazogeneratorsnogo  
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1.Direktor nauchno-issledovatel'skogo avtotraktornogo instituta (for  
Akopyan). (Gas and oil engines)

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MALAKHOVSKIY, V.E., kandidat tekhnicheskikh nauk; AKOPYAN, S.I., kandidat tekhnicheskikh nauk, otvetstvennyy redaktor; GOSTEV, B.I., kandidat tekhnicheskikh nauk, zamestitel' direktora po nauchnoy rabote; VASIL'YEV, A.V., kandidat tekhnicheskikh nauk, redaktor; KRISTI, M.K. professor, redaktor; L'VOV, Ye.D., professor, redaktor; MALASHKIN, O.M., inzhener, redaktor; YUDUSHKIN, N.G., inzhener, redaktor; PONOMAREVA, K.A., inzhener, redaktor; MATVEYEVA, Ye.N., tekhnicheskiiy redaktor.

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N.G.

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HISHEVICH, A.I., inzhener; AKOPYAN, S.I., kandidat tekhnicheskikh nauk, redaktor; GOSTEV, B.I., kandidat tekhnicheskikh nauk, redaktor; VASIL'YEV, A.V., kandidat tekhnicheskikh nauk, redaktor; KRISTI, M.K., professor, redaktor; L'VOV, Ye.D., professor, redaktor; MALASHKIN, O.H., kandidat tekhnicheskikh nauk, redaktor; YUDUSHKIN, N.G., inzhener, redaktor; POPOVA, S.M., tekhnicheskii redaktor.

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Primenenie novykh metodov opredeleniia velichiny iznosa detalei traktornogo dvigatelya. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1956. [Trudy], no.14) (MLRA 9:10)

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*YUDUSHKIN, N.G.*  
 ZUBIYETOV, I.P., inzh.; AKOPYAN, S.I., kand. tekhn. nauk, otv. red.; GOSTEV,  
 B.I., zam. otv. red.; VASIL'YEV, A.V., kand. tekhn. nauk, red.;  
 KRISTI, M.K., prof. red.; L'VOV, Ye.D., prof., red.; MALASHKIN, O.M.,  
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[Standardizing fuel pump plungers used in the D-35 and D-54 tractor  
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 no.15). (MLRA 10:9)

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YUDUSHKIN, N.G., inzhener.

Study of the gasification of peat brickets. [Trudy] NATI no.13:23-48  
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VELICHKIN, I.N., kand.tekhn. nauk; AKOPYAN, S.I., kand. tekhn.nauk, otv.red.;  
GOSTEV, B.I., kand.tekhn.nauk, zam.otv.red; VASIL'YEV, A.V., kand.  
tekhn.nauk, red.; ERISTI, M.E., prof., red.; L'VOV, Ye.D., prof.,  
MALASHEIN, O.M., kand.tekhn.nauk; YUDUSHKIN, B.G., inzh.;  
A.F., tekhn.red.

[Some characteristics of the performance of gas-producer engines]  
Nekotorye osobennosti rabocheho protsessa gasogeneratornykh dvigatelei  
Moskva, Gos. nauchno-tekhn iss-vo mashinostroit. litry, 1948.  
(Moscow. Gosudarstvennyi soiuzyi nauchno-issledovatel'skii  
traktorny institut [Trudy], no.16) (MIRA 12:3)  
(Gas and oil engines--Testing)

SOV/137-58-7 10100

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 321 (USSR)

AUTHORS: Aglitskiy, V. A., Yudytskiy, A. P., Fedotova, Ye. I.

TITLE: On the Method of Noble-metals Assay of Blister Copper (O metodike oprobovaniya chernovoy medi na sodержaniye blagorodnykh metallov)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. i proyekt. in-t medn. prom-sti, 1957, Nr 2, pp 355-360

ABSTRACT: The method of assaying (MA) blister Cu by means of sampling the liquid metal with a special mold-ladle without pouring the metal into a test mold. Several MA of crude CU for noble metal contents are given: Pattern drilling, taking of a liquid test sample from the converter or the ladle of the casting machine and granulation of liquid metal. The comparative character of the results obtained with different MA is given. It is shown that in taking the test by means of drilling the solid metal difficulties are encountered owing to the dirt present on the surface of the ingot, the uneven distribution of noble metals in the different sections of the ingot, and the different degrees of cleanliness of the separate structural components of the ingot.

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SOV/137-58-7-16169

On the Method of Noble-metals Assay of Blister Copper

in a different composition of the fine and the coarse fractions of the chips. The latter complicates the preparation of the test sample of chips for the analysis. It is determined that in the sampling of liquid crude Cu a great influence on the validity of the taking of the sample is exerted by the phenomena of liquation. The presence of liquation phenomena during the solidification of blister Cu has a telling effect on the noble-metal content in relation to the spot from which the sample was taken during the casting of Cu, whereas in the granulation of Cu its effect depends on whether the granulated metal is drawn directly from the stream of the metal tested or is granulated from the ladle.

A. M.

1. Copper--Analysis    2. Copper (Liquid)--Sampling    3. Copper  
--Test methods

Card 2/2

YUDYTSKIY, A.P.

Underground copper leaching practices. Biol TSIKH tsvet, net. no.1:  
23-26 '58. (MIRA 11:4)

(Copper ores) (Leaching)

YUDYTSKIY, A.P., inzh.

Potentialities of the copper industry. Gor. zhur. no.4:7-8 Ap '60.  
(MIRA 14:6)

1. Unipromed', Sverdlovsk.  
(Copper mines and mining)

YUDZON, I. F.

"Impracticality in Communications Construction Planning," Vest. Svyazi,  
No.3, pp 23-24, 1954

Deputy Chief, SMU Lentelegonstroy

Translation Trans.No.533, 6 Apr 56



YUDZON, I.F.

High labor productivity is the basis of production achievements  
in building communication installations. Vest. sviazi 17 no.3:  
28 Mr '57. (MLRA 10:4)

1. Zamestitel' nachal'nika stroitel'no-montazhnogo upravleniya  
"Lentelefonstroya".  
(Telecommunication) (Building)

*10/20/57*  
NEVSKIY, V.A.; YUDZON, I.P.

Eliminate the causes of unprofitableness in the production work.  
Vest.sviazi 17 no.6:25 Je '57. (MIRA 10:8)

1.Proizvoditel' rabot stroitel'no-montazhnogo upravleniya  
"Lentolefentroy" (for Nevskiy) 2.Samostitel' nachal'nik  
stroitel'no-montazhnogo upravleniya (for Yudzon)  
(Telephone)

YUDZON, O. I.

Simultaneous oscillographic video signal form control by the  
scanning line and the frame. Vest.sviazi 15 no.8:25-26 Ag'55.  
(MIRA 8:12)

1. Inzhener Leningradskogo teletsentra  
(Television--Apparatus and supplies--Testing) (Oscillograph)

YUDZON, O. I.

TELEVISION

"Operation of Television Transmitting Tube with Long Camera Cable", by  
O.I. Yudzon, Elektrosvyaz', No 8, August 1957, pp 71-73.

The author suggests a new method for compensating for the time delay produced by long television camera cables. Each camera channel contains a network, which permits time delay of the horizontal pulses of the transmitting tube by an amount equal to the difference between the duration of the line (64 microseconds) and the time delay corresponding to the length of the camera cable employed.

Card 1/1

- 52 -

1. YUFA, B. Ya - LIOTEN'KIY, S. Ya
2. USSR (600)
4. Geophysics - Novgorod Province
7. Report on the activity of the Komarovo geophysics party in the Lyubytino and Borovichi Districts of the Novgorod Province. (abstract) Izv. Glav. upr. geol. fon. no. 3, 1947
9. Monthly list of Russian Accessions, Library of Congress, March 1953, Unclassified

UFA, B. Ia.

Remarks on I.P. Sharapov's article "Control analyses of geological specimens." Reviewed by B. Ia. Ufa. Razved. i okh. no. 5:60-63 S-O '54. (MIRA 10:1)  
(Mineralogy, Determinative) (Ores--Sampling and estimation)

YUFA, B.Ya.

Concerning V.L. Shashkin's errors in check sampling. Trudy Inst.  
geol. AN Kir. SSR no.10:193-200 '58. (MIRA 12:9)  
(Ores--Sampling and estimation)

OZHINSKIY, I.S.; SOKOLOV, P.V.; YUFA, B.Ya.; NUKHIN, S.S., red.izd-va;  
BYKOVA, V.V., tekhn.red,

[How to prospect for uranium ores] Kak iskat' uranovye rudy.  
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geologii i okhrane  
nedr, 1959. 54 p. (MIRA 13:11)  
(Prospecting) (Uranium ores)



YUFA, B.Ya.

Method for calculating occasional errors of analyses of mineral  
resource appraisals. Rasved. i okt. nedr 26 1983

1. Ministerstvo geologii i okhrany nedr SSSR.  
(Mines and mineral resources)

YUFA, B.Ya.

Evaluation of the accuracy of continuous recording of the results  
of physical measurements. Razved. i okh. nedr 27 no.1:48-49 Ja  
'61. (MIRA 17:2)

1. Ministerstvo geologii i okhrany nedr SSSR.

OZHINSKIY, I.S.; SOKOLOV, P.V.; YUFA, B.Ya.; CHUMACHENKO, Z.N., red.  
izd-va; BYKOZA, V.V., tekhn. red.

[How to search for uranium ores] Kak iskat' uranovye rudy. Izd. 2.,  
ispr. i dop. Moskva, Gosgeoltekhizdat, 1962. 55 p. (MIRA 16:3)  
(Prospecting) (Uranium ores)

YUFA, B.Ya.

Determining the quality factor of analytic radiometers.  
Geofiz. prib. no. 12:82-89 '62. (MIRA 17:5)

1. Ministerstvo geologii i okhrany nedr SSSR.

YUFA, B.Ia.

Equations for mean random errors in analyses and use of these equations for evaluating the reproduction of radiometric determinations. Zav.lab. 28 no.3:329-336 '62. MIRA 1

1. Ministerstvo geologii i okhrany nedr SSSR.  
(Materials--Analysis) (Mathematical analysis)

YUFA, B.Ya.

Method of excluding samples with a relatively very high ore  
content. Razved. i okh. nedr 28 no.8:19-23 Ag '62. (MIRA 15:8)

1. Ministerstvo geologii i okhrany nedr SSSR.

YUFA, B.Ya.

Appraisal of the metrological parameters of a "Neutron" type  
unit. Zav. lab. 30 no.7:872-875 '64. (MIRA 18:3)

YUFA, B. Ya.

"Theories of improbabilities" in B.S. Levonik's book "Problems  
of economic geology". Sov. geol. 7 no.5:156-158 My '64  
(MIRA 12:2)



YUFA, E.P., inzhener; KORETSKIY, G.I., inzhener; CHERNITSKIY, M.M.,  
inzhener.

Running-in journals of large shafts instead of grinding. Vest.mash.  
36 no.10:55 0 '56. (MLRA 9:11)  
(Shafts and shafting)

SOV/122-58-7-29/31

AUTHORS: Yufa, E.P., Engineer and Terlezhskiy, V.Ye.

TITLE: Powder Metallurgical Components (Metallokeramicheskiye izdeliya)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 7, pp 84-85 (USSR)

ABSTRACT: The advantages and production methods are surveyed with emphasis on electric contact and antifriction materials. Controlled porosity in contact materials enables the pores to hold the low-melting alloy fused by the breaking arc, which prevents welding. A contact pair, with a stationary contact of a silver carbon composition and a moving contact of a silver nickel composition has been successful. To increase the mechanical strength of the moving contact, a new silver nickel carbon composition permitting up to  $8 \text{ kg/cm}^2$  pressure compared with 4 in the older type, has been developed under the direction of L.S. Palatnik, Doctor of Physical and Mathematical Sciences, Professor, by the Khar'kovskiy elektromekhanicheskiy zavod (Khar'kov Electro-mechanical Works) in co-operation with departments of the Khar'kovskiy gosudarstvennyy universitet (Khar'kov State University) imeni Gor'kogo and Khar'kovskiy politekhnicheskiy institut (Khar'kov Polytechnical Institute)

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Powder Metallurgical Components

SOV/122-58-7-29/31

imeni Lenina. Another group of materials, a composition of silver and cadmium oxide, is used in AC relays working in special atmospheres. The silver powder is prepared at the Khar'kov Works by the electrolytic method which produces a sponge of 10  $\mu$  particles. A special method for pulverising the sponge avoids work-hardening the particle surfaces and a loss of dendritic structure. In the pressing of components, the observance of optimum pressure is vital. Experience of the Khar'kov Works has shown that the porosity can be reduced to 2-3%, instead of the customary 5-7%. Sintering is carried out in a hydrogen atmosphere at 850 °C during 2.5 hours. Silver-cadmium oxide components are sintered without protective atmosphere for 1 hour at 830 - 850 °C. Calibration follows at pressures of 4 000 - 5 000 kg/cm<sup>2</sup>. Oil-impregnated bronze-graphite bearings are made by the Khar'kov Works. Iron graphite bearing sleeves up to 150 mm dia and 60 mm length for silent electric motors are being developed by the works in co-operation with the Institut metallokeramiki AN USSR (Powder Metallurgy Institute of the Ukrainian Ac.Sc. SSR). Made with 20-25% porosity, the composition contains 97% iron powder and 3% graphite. Carburising

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Powder Metallurgical Components

SOV/122-58-7-29/31

by sintering in a carburising medium is practised on powder metallurgical iron components. It is stated that bearings of a table top fan made of an iron-graphite composition have seven times the service life of fabric reinforced plastic bearings and twice the service life of bronze graphite bearings.  
There is 1 table.

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SOV/122-59-3-26/42

AUTHORS: Yufa, E.P., Lecturer, and Dynshits, M.A., Engineer

TITLE: On the Ways of Specialisation in Tool Manufactures (O  
putyakh spetsializatsii instrumental'nykh proizvodstv)

PERIODICAL: Vestnik Mashinostroyeniya, 1959<sup>37</sup> Nr 3, pp 76-77 (USSR)

ABSTRACT: The increased importance of specialised tooling within the total tool requirements is emphasised. The Khar'kov Economic Council, in promoting the specialisation of tool manufacture, has chosen the creation of specialised departments in the tool shops of engineering works to produce in centralised fashion a standard range of tools. A project was submitted to the Economic Council by the appropriate division of the Ukrainian Branch of the Gosplan in co-operation with the Department of Industrial Economics and Organisation at the Khar'kov Polytechnic Institute (Khar'kovskiy Politekhnikheskiy Institut) 'Imeni V.I. Lenina'. Estimated savings are stated. An average percentage is 28%. Special equipment would pay off in 5 months. Nevertheless, specialised enterprises could achieve much higher savings. Certain types of tooling should be produced within  
Card 1/2 suitable existing manufacturing organisations. For

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On the Ways of Specialisation in Tool Manufactures

example, portable power tools should be produced where small motors are already manufactured. Measures of standardisation needed for successful specialisation are discussed.

Card 2/2

YUFA, E.P.

[Organization of metal-cutting tool supply at a machinery plant; manual for the course "Industrial economics and organization of enterprises"] Organizatsiia instrumental'nogo khoziaistva mashinostroitel'nogo zavoda; uchebnoe posobie po kursu "Ekonomika promyshlennosti i organizatsiia predpriatii." Khar'kov, Khar'kovskii politekhnicheskii in-t im. V.I.Lenina, 1960. 29 p. (MIRA 17:4)

YUFA, Engel' Pavlovich; PAVLOV, S.P., inzh., retsenzent; PANTER, B.Ya.,  
inzh., retsenzent; MIRKIN, A.A., inzh., red.; SALYANSKIY, A.A.,  
red. izd-va; SMIRNOVA, G.V., tekhn. red.

[Cutting tool department of a machinery plant] Instrumental'noe  
khoziaistvo mashinostroit'nogo zavoda. Moskva, Gos.nauchno-  
tekhnicheskoe izd-vo mashinostroit.lit-ry, 1961. 117 p.

(MIRA 15:1)

(Machinery industry) (Metal-cutting tools)



YUFA, Engel' Pavlovich, inzh.; KIRIYENKO, Ye.G., kand. tekhn. nauk,  
retsensent; KRAVETS, V.I., inzh., red.izd-va; KOZUM, T.I.,  
tekhn. red.

[Manufacture of metalworking tools at a machinery plant;  
economics, organization and planning] Instrumental'noe  
proizvodstvo mashinostroitel'nogo zavoda; ekonomika, orga-  
nizatsiya i planirovanie. Kiev, Gostekhzdat USSR, 1963.  
225 p. (MIRA 17:1)

(Machinery industry—Management)  
(Metal-cutting tools) (Metalworking machinery)

L 08518-67. EWT(d)/EWT(m)/EWP(c)/EWP(v)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(l) LJP(c) m  
ACC NR: AM6019451 Monograph

Lyapunov, Mikhail Aleksandrovich (Candidate of Technical Sciences); Tsenta, Yevgeniy Leonidovich (Candidate of Technical Sciences); YUfa, Engel' Pavlovich (Docent)

Electric pulse machining of tough metals and alloys (Elektroimpul'snaya obrabotka vysokoprochnykh metallov i splavov) Kiev, Izd-vo "Tekhnika", 65. 0149 p. illus., biblio. 2,500 copies printed.

TOPIC TAGES: metal finishing, metalworking machinery, electric metal finishing, high strength metal, high strength alloy, precision finishing

PURPOSE AND COVERAGE: This book gives the principles of electric pulse working of parts made from tough metals and alloys. Also presented is the technology of finishing sectional surface, production and reconditioning of rigging equipment. The equipment for electric pulse working (fuel supply, machinery) is described, and recommendations are made for its use. The book is considered useful to technical engineers dealing with problems in the technical preparation of the production of machine construction courses in technical institutes.

# TABLE OF CONTENTS (abridged):

Preface—5  
Ch. I. Main points and electrotechnical characteristics of electric pulse working—7  
Ch. II. Equipment for electric pulse working—21

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ACC NR: AM6019451

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Ch. III. Principles of the technology of electric pulse working--46

Ch. IV. Precision and quality of the surface of parts finished by electric pulse  
methods--76

Ch. V. Electric pulse working of sectional surfaces, production and reconditioning  
of technological rigging equipment--86

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refractory metals<sup>18</sup>

SUB CODE: 09 SUEM DATE: 29Oct65/ ORIG REF: 028

MASTYAYEV, N.Z.; ORLOV, I.N.; YUFEROV, F.M., dots., retsennent;  
BOBOV, A.S., prof., retsennent; LARIONOV, A.N., prof.,  
red.[deceased]

[Hysteresis motors] Gisterezisnye elektrodvigateli; po-  
sobie dlia diplomnogo ii kursovogo proektirovaniia. Mo-  
skva, Mosk. energ. in-t. Pt.2. [Problems of design] Vop-  
rosy proektirovaniia. 1963. 186 p. (MIRA 17:2)

1. Chlen-korrespondent AN SSSR (for Larionov).

BALAGUROV, Vladimir Aleksandrovich; GALTSEYEV, Fedor Fedorovich;  
LARIONOV, Andrey Nikolayevich, prof. [deceased];  
BERTINOV, A.I., doktor tekhn. nauk, prof., retsenzent;  
YUFEROV, F.M., kand. tekhn. nauk, dots., red.; FRIDKIN,  
L.M., tekhn. red.

[Electrical machines with permanent magnets] Elektricheskie  
mashiny s postoiannymi magnitami. Moskva, izd-vo "Energia,"  
1964. 479 p. (MIRA 17:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Larionov).

YUFA, M.A.; SLUTSKIY, S.B., red.

[Furniture manufacture; bibliography of Soviet and foreign literature of 1958-1960 (first half year)] Proizvodstvo mebeli; bibliograficheskii ukazatel' otechestvennoi i inostrannoi literatury za 1958-1960 gg. (pervoe polugodie). Moskva, 1960. 144 p. (MIRA 15:5)

1. Moscow. Tsentral'naya nauchno-tekhnicheskaya biblioteka lesnoy i bumazhnoy promyshlennosti.  
(Bibliography--Furniture)

BOLDENKOV, R.P.; FEYCH, N.N., red.; YUFA, M.A., otv. red.

[Heat treatment of wood; bibliographic index of the Soviet literature for 1935-1961 for engineers and technicians] Teplovaia obrabotka drevesiny; bibliograficheskii ukazatel' otechestvennoi literatury dlia inzhenerno-tekhnicheskikh rabotnikov za 1935-1961 gg. Moskva, Gos.kom-t Soveta Ministrov RSFSR, 1962. 16 p. (MIRA 15:8)

1. Moscow. Tsentral'naya nauchno-tekhnicheskaya biblioteka lesnoy i bumazhnoy promyshlennosti.

(Bibliography--Wood--Heat treatment)

YUFA, M.A., otv. red.

[Utilization of the wastes of the lumbering, sawmill and wood-working industries; bibliographic index of foreign literature for the period from 1955 to 1961] Ispol'zovanie otkhodov lesoprogotovit'noi, lesopil'noi i derevoobrabatyvaiushchei promyshlennosti; bibliograficheskii ukazatel' inostrannoi literatury za 1955-1961 gg. Moskva, GOSINTI, 1962. 53 p.

(MIRA 19:10)

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(Bibliography---Wood waste)



TVERDOVSKAYA, N.N.; OTLIVANCHIK, A.N., red.; YUFA, M.A., otv. red.

[Production of particle boards; bibliographical index of Soviet and foreign literature for 1960-1961] Proizvodstvo drevesnykh plit; bibliograficheskii ukazatel' otechestvennoi i inostrannoi literatury za 1960-1961 gg. Moskva, 1962. 93 p. (MIRA 16:10)

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(Bibliography--Particle board)

MAZARSKIY, S.M.; YUFA, M.S.

Sulfur dioxide exhaust fans made of vinyl plastics. Bus.prom. 32  
no.2:16-17 P '57. (MIRA 10:5)

1.Rukovoditel' gruppy netipovogo oborudovaniya Giprobuma (for Mazar-  
skiy) 2.Nachal'nik kislotnogo tsakha Syas'skogo tsellyulozno-bumazhnogo  
kombinata (for Yufa)  
(Sulfur dioxide) (Exhaust systems) (Plastics)

YUFH, 17.5.

VLADIMIRTSYEV, V.P.; YUFA, M.S.

Use of conical vortex purifiers for the cleaning of tower acid,  
Bum. prom. 32 no.7:21 J1 '57. (MIRA 10:11)

1. Syas'skiy tsellyulozno-bumazhnyy kombinat.  
(Sulfuric acid)  
(Chemical engineering--Equipment and supplies)

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SOV/184-57-5-8/17

5.1200

AUTHORS: Varentsov, P.V., Candidate of Technical Sciences, Yufa, M.S., Engineer

TITLE: The Motion of a Layer of Solid Particles in Tubular Rotary Kilns

PERIODICAL: Khimicheskoye mashinostroeniye, 1959, Nr. 5, pp. 22-26 (USSR)

ABSTRACT: An attempt is made to describe the motion of a layer of solid particles in a tubular rotary kiln, using the dimensional analysis to determine the function of different factors affecting the motion of particles and to establish conditions of furnace modeling. The law of motion of a layer of solid particles can be expressed as a function of the following variables:

$$\omega_s = f(\omega_g, \gamma_g, \gamma_s, \mu, d_s, D_k, \omega_k, \alpha_k, g, \beta_s, L_k, l_v)$$

where:  $\omega_s$  - velocity of motion of solid particles, m/sec;  $\omega_g$  - velocity of motion of the gas flow in the kiln, m/sec;  $\gamma_g$  - specific gravity of the gas, kg/m<sup>3</sup>;  $\gamma_s$  - specific gravity of solid particles, kg/m<sup>3</sup>;  $\mu$  - gas viscosity, kg/sec · m<sup>2</sup>;  $d_s$  - dimensions of solid particles, m;  $D_k$  - inner diameter of the kiln, m;  $\omega_k$  - angular velocity of rotation of the kiln, m/sec;  $\alpha_k$  - angle of inclination of the kiln, degrees;  $g$  - gravity acceleration, m/sec<sup>2</sup>;  $\beta_s$  - angle of inclination of the layer of solid particles, degrees;  $L_k$  - length of the kiln, m;  $l_v$  - height of the layer of solid particles, m.

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# The Motion of a Layer of Solid Particles in Tubular Rotary Kilns

repose of solid particles, degrees;  $L$  - length of the kiln, m,  $\phi_K$  - degree of filling of the kiln cross-section,  $m^2$ . According to the  $\Pi$ -theorem of the dimensional theory, three criteria and three simplexes are derived. The explicit form of functional connection between the similarity criteria was established experimentally. The experiments were carried out using a kiln of 6 m length and 714 mm outer diameter. The inner diameter was 300 and 550 mm, depending upon the test conditions. The gas-fired kiln was equipped with all the necessary instruments and worked according to the counterflow principle. Four materials of different specific gravity were used: unsorted pyrite, crushed marble sand and coke. Each material was divided into four fractions by screen sizing. The average size of particles of each fraction was determined with the "ФР-1" instrument. The angle of repose was determined by the method of Koler (Ref. 11). The mean gas velocity was determined by the primary and secondary air consumption and by the amount of the gas. The charging time was twice the time the material stayed in the kiln. The instruments readings were recorded at 30-minute intervals during the second half of the tests. After each test the average stay of the material in the kiln was determined by the method

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# The Motion of a Layer of Solid Particles in Tubular Rotary Kilns

the weight of the discharged material by the average hourly charge. The graph, Figure 6, shows that the gas temperature variation does not affect the velocity of the layer of solid particles and can be expressed by a constant coefficient, depending only on the specific gravity of the material. The maximum difference of the values  $\omega_s/\omega_g$  for coke (specific gravity 1,944 kg/m<sup>3</sup>) and unsorted pyrite (specific gravity 4,384 kg/m<sup>3</sup>) was about 19%. Consequently, if for these materials one mean coefficient is taken, the maximum error will be 9%. Thus the criterion  $\tau_g/\tau_s$  can be neglected. The graph, Figure 1, shows that the dependence of  $\omega_s/\omega_g$  on  $L_k/d_k$  is expressed for different materials by closely spaced horizontal lines. Consequently the mean velocity of a layer of solid particles is practically independent of the kiln length and the criterion  $L_k/d_k$  can be neglected. An equation is derived:

$$\frac{\omega_s}{\omega_k} = m \text{Re}^{-0.01} \text{Ga}^{0.33} \left( \frac{d_k}{\beta_s} \right)^{0.66} \left( \frac{\eta_k}{d_s} \right)^{0.08} \left( \frac{D_k}{d_s} \right)^{0.93}$$

where m - coefficient depending on the kiln diameter. The coefficient m was determined experimentally for diameters 0.3 m and 0.55 m. For other diameters, it was computed. The velocity of the material in


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The Motion of a Layer of Solid Particles in Tubular Rotary Kilns

kilns of different diameters was calculated by the formula of Sullivan, Maier and Ralston (Ref. 1), which gives results fairly near to reality. The graph, Figure 9, shows that the experimental values of  $m$  are sufficiently close to the curve calculated by the above formula. There are 8 graphs, 1 diagram, 1 table and 11 references; 3 Soviet, 3 German and 5 English.



Card 4/4

YNEI M.G. GRIGORYEV G.P. VARETSOV L.V.



USSR.

✓ Synthesis of 4,4'-dinitrodiphenyl sulfide. T. G. Rabinovich and P. A. Yula. *Ukrain. Khim. Zhur.* 26, 71-72 (1953) (in Russian). 4,4'-Dinitrodiphenyl sulfide (in. of value for synthesis of 4,4'-dinitrodiphenyl sulfone and in. can be produced in yield greater than that obtained by Gabel and A. L. Shvachkin (C.A. 36, 6234) if the  $\text{Na}_2\text{S}$  used contains some  $\text{NaOH}$ . 4-Nitrochlorobenzene (31.5 g. was dissolved by heating in 350 ml. of EtOH and a soln. of 24 g. cryst.  $\text{Na}_2\text{S}$  and 0.54 g. S in 72 ml. water added dropwise during 1 hr. to the gently boiling soln. After heating on a boiling water bath for 6 hrs., the ppt. was filtered off, washed with EtOH and hot water, and dried to give 12.4% 1, m. 150-7° (from phen. AcOH). Clayton P. Hays, Jr.

Y. A. A.

SERBRYANYI, S.B. YUFA, P.A.

Synthesis of 1-oxyphenazine derivatives. Ukr.khim.zhur. 22  
no.4:512-513 '56. (MIRA 10:10)

1.Institut organicheskoy khimii AN USSR.  
(Phenazine)

USSR/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19224.

Author : Syerebryanyi S. B., Yufa P.A.

Inst :

Title : Synthesis of 1-hydroxyphenazine Derivatives. 6. Haloid Derivatives of 1-hydroxyphenazine.

Orig Pub: Ukr. khim. zh. 1956, 22, No 4, 512-513.

Abstract: By desalkylation of corresponding methoxyderivatives 6-chlor-(I), 7-chlor-(II), 8-chlor-(III) and 7-brom-(IV)-1-hydroxyphenazines were obtained. A mixture of 0.2 mole o-nitroanisole, 0.2 mole n-bromaniline, 50 g. KOH and 300cc  $C_6H_6$  is boiled for 7 hours, and 1-methoxy-7-bromphenazine (V), yield 12.3%, m.p. 209-210° (chromatography on  $Al_2O_3$ ; from ligr.) is obtained; as by-products 0.37g. 2-bromphenazine, m.p. 149-150°, and 1.01 g. 1,7-dimethoxyphenazine, m.p. 148-150° were isolated. A mix-

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USSR/Organic Chemistry. Synthetic Organic Chemistry.

E-2

Abs Jour: Ref Zhur-Khimiya, No 6, 1957, 19224.

ture of 1 g. of 1-methoxy-7-chlorphenazine, 2 g.  $AlCl_3$  and 45cc  $C_6H_6$  is boiled 5 hours, cooled off, decomposed with ice, and treated with conc. HCl, and by alkalizing slightly II, yield 92%, m.p. 191-192° (from alc.) is isolated. Analogically were obtained: from 0.08 g. 1-methoxy-6-chlorphenazine, 0.2 g.  $AlCl_3$  and 10cc  $C_6H_6$  -- 0.5g. I, m.p. 203-204° (from alc.), and from 1 g. V, 2 g.  $AlBr_3$  and 75cc  $C_6H_6$  -- IV, yield 74%, m.p. 197-198° (from alc.). By heating 30 min. of a solution of 0.2 g. of 1-methoxy-8-chlorphenazine in 10 cc 65%  $H_2SO_4$  III, yield 95%, m.p. 167-168° (from aqueous alc.) is obtained. Part 5 see RZhKhim., 1954, 41205.

Card : 2/2

UFA, P.A.

Chem

Synthesis and properties of Sulfamethine—new antitubercular preparation. L. M. Kul'berg, S. G. Riklis, P. A. Yuia, and R. P. Vel'tman (Ukrain. Tuberculous S. Res. Inst., Kiev). *Zhar. Onstche. Karm.* 26, 185-22 (1958) (Engl. transl. in *J. Gen. Chem. U.S.S.R.* 26, 175-8, 1958) (Rusl. transl. in *Chem. Abstr.* 53, 10876d).—(p-H<sub>3</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>)<sub>2</sub> (I) (2 g.) in 2 ml. warm EtOH treated with 28 g. p-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO in 2 ml. EtOH and the hot soln. treated with 18 ml. concd. H<sub>2</sub>SO<sub>4</sub> added dropwise gave an orange ppt. which after washing with EtOH and aqd. NaHCO<sub>3</sub> gave 35-40 g. Sulfamethine [(p-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>SO<sub>2</sub>] (II), yellow, mp. 275-80°. It retards the growth of tubercular organisms. Refluxing an alc. soln. of I and p-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CHO yields the monomeric azomethine which is inactive against tubercular organisms and m. 230-1°. Treatment of this in EtOH with H<sub>2</sub>SO<sub>4</sub> readily yields II. Both are hydrolyzable by 0.1N HCl at room temp. and the extent of hydrolysis, by detn. of I colorimetrically by coupling with H<sub>2</sub>SO<sub>4</sub>. In neutral aq. medium the hydrolysis is slow but appreciable, the rate increasing rapidly with time. While the monomer of II is not affected by NaHSO<sub>4</sub>, II turns to monomer. The x-ray pattern is shown for II and its monomer.

The X-ray picture is

G. M. Kozlov

AUTHORS: Yagupol'skiy, L. M., Yufa, P. A. SOV/79-28-10-49/60

TITLE: Reaction of Phenyl-Phosphorus Tetrachloride With Diazomethane  
(Vzaimodeystviye chetyrekhkhlorigo fenilfosforya s diazometanom)

PERIODICAL: Zhurnal obshchey khimii, 1956, Vol 28, Nr 10,  
pp 2853 - 2856 (USSR)

ABSTRACT: The reaction, investigated according to reference 1, of the aliphatic diazo-compounds with phosphorus halogenides showed that phosphorus tri- and phosphorus pentachloride react with diazomethane at  $-60$  to  $-40^{\circ}$ . In the case of the former chloride, the reaction ends at the stage of the monoalkyl derivative, with the formation of chloro-methyl-phosphorus dichloride; with phosphorus penta chloride it continues up to the tri-alkyl derivative, trichloro-trimethyl phosphine. The investigation of the reaction of arylphosphorus pentachloride with diazomethane suggested itself. It was found that phenyl-phosphorus tetrachloride reacts most readily with it at  $-40^{\circ}$ . After hydrolysis, a  $\alpha, \alpha'$ -dichloro-dimethyl-phenyl phosphine oxide was separated out.

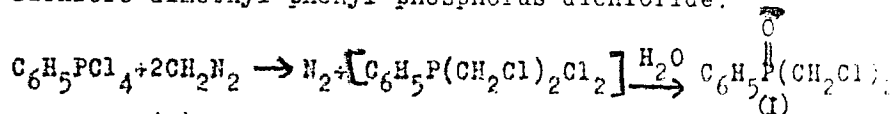
APPROVED FOR RELEASE: 03/15/2001

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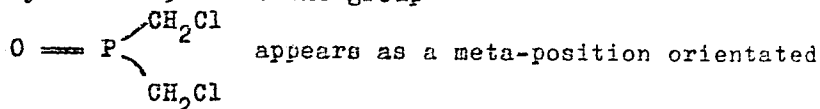
Reaction of Phenyl-Phosphorus Tetrachloride With  
Diazomethane

SOV/79-25-16-49, 11

The reaction proceeds via the formation stage of  $\omega, \omega'$ -dichloro-dimethyl-phenyl phosphorus dichloride:



Compound (I), separated out in colorless prisms, is difficultly soluble in water and benzene, and solves well in alcohol and acetone. Its chlorine atoms in the chloromethyl groups do not react easily. The nitration of (I) is achieved by means of a nitrating mixture, the nitro group entering, according to Sandmeyer (Zandmeyer), into the meta-position (Reaction pattern 2). The same end product (IV) can also be obtained by the counter-synthesis 3. Thus the group



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substituent. There are 3 references, 2 of which are Soviet.

Reaction of Phenyl-Phosphorus Tetrachloride With  
Diazomethane

SOV/79-28-10-49, 10

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainsskoy SSR  
(Institute of Organic Chemistry at the AS UkrSSR)

SUBMITTED: July 30, 1957

Card 3/3



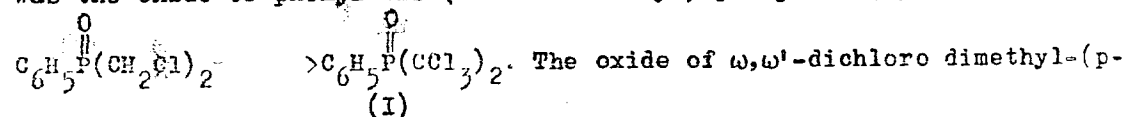
S/079/60/030/04/56/080  
B001/B011

AUTHORS: Yagupol'skiy, L. M., Yufa, P. A.

TITLE: Phenyl-bis-(trichloromethyl)-phosphin oxide, Phenyl Trichloromethyl Phosphinic Acid, and Their Derivatives

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1294-1296

TEXT: The authors aimed at synthesizing compounds containing a phosphorus atom linked with the benzene ring and with one or two trichloromethyl groups. The oxide of  $\omega, \omega'$ -dichlorodimethyl phenyl phosphine (Ref. 1), which was chlorinated at 150-215°, served as the initial product. The resulting product was the oxide of phenyl-bis-(trichloromethyl)-phosphine (I)



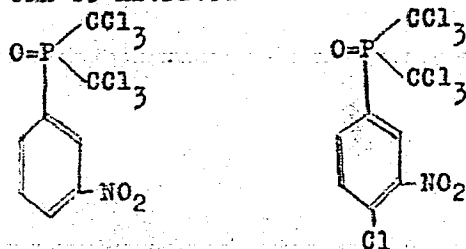
chlorophenyl)-phosphine, which was obtained from p-chlorophenyl tetrachlorophosphorus and diazomethane, was chlorinated, and the oxide of p-chlorophenyl-

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Phenyl-bis-(trichloromethyl)-phosphin oxide, Phenyl  
Trichloromethyl Phosphinic Acid, and Their  
Derivatives

S/079/60/030/04/56/060  
B001/B011

bis-(trichloromethyl)-phosphine (II) was obtained. Both oxides (I) and (II) are colorless crystalline products and do not change on the action of aqueous acid- and alkali solutions up to 100°. They are so stable that they can be nitrated at 100° with the nitration mixture:



The ethyl ester of phenyl trichloromethyl phosphinic acid was taken as the initial product of the synthesis of the derivatives of the latter (Ref. 2). Investigations were extended to the reaction of ester (III) with  $\text{PCl}_5$ , with the acid chloride (IV) forming according to Scheme 2. In addition to the

Card 2/3

Phenyl-bis-(trichloromethyl)-phosphin oxide,  
Phenyl Trichloromethyl Phosphinic Acid, and  
Their Derivatives

S/079/60/030/04/56/080  
B001/B011

acid chloride (IV) there arises a certain amount of (V), according to Scheme 3. On heating the ester (III) with 3 moles of  $PCl_5$  at 100-160°, a complex (VI) is formed (Scheme 4), which, on hydrolyzing, gives rise to the acid chloride (IV) in a quantitative yield. The authors became acquainted with the article by P. Biddle, I. Kennedy, I. Willans (Ref. 3) only after having completed their own investigation (Scheme 5). A paper by G. Kamay is mentioned (Ref. 2). There are 4 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR  
(Institute of Organic Chemistry of the Academy of Sciences,  
Ukrainskaya SSR)

SUBMITTED: May 5, 1959

Card 3/3

YAGUPOL'SKIY, L.M.; FIALKOV, Yu.A.; YUFA, P.A.

2-Trifluoromethylnaphthalene and its derivatives. Zhur.ob.  
khim. 31 no.12:3962-3970 D '61. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.  
(Naphthalene)

SEREBYANYI, S.B., YUFA, P.A.

Amination of alkyl phenazinium salts. Ukr.khim.zhur. 29 no.3:322-325  
'63. (MIRA 16:4)

1. Institut organicheskoy khimii AN UkrSSR.  
(Phenazinium compounds) (Amination)

ARDCASHEV, K.A., kand. tekhn. nauk; SHIK, V.M., inzh.; YUFEROV, P.A., inzh.

Characteristics of displacement, caving and overflow of rocks  
during the use of the shield mining method in "Koksovaia-2"  
mine. [Trudy] VNIMI no. 50:20-31 '63.

(MIRA 17:10)

YUFA, I.P.

18(6) PHASE I BOOK EXPLOITATION SOV/3199

Madaniya nauk SSSR. Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova

Analyticheskiy metallor (Analysis of Noble Metals) Moscow, 1959. 131 p. Errata slip inserted. 2,700 copies printed.

Red. Ed.: M. K. Pashnitsyn, USSR Academy of Sciences, Corresponding Member; and O. Ye. Zvyaginets, Doctor of Chemical Sciences; Eds. of Publishing House: I. G. Levi, and D. N. Trifonov; Tech. Ed.: I. M. Gusava.

PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.

COVERAGE: This is a collection of articles on the analysis of the noble metals. It includes studies carried out by the Institute of General and Inorganic Chemistry in N. S. Kurnakova, as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The studies and reports describe new organic reagents for gravimetric determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic and potentiometric). Special attention is given to spectral analysis for the determination of noble metals in alloys of platinum metals, silver, and gold, as well as in refined noble metals. The collection also includes analytical methods, tables and charts for materials, and a bibliography of the literature on the analysis of platinum metals published in the last five years. No personalia are mentioned. References follow each chapter.

Pashnitsyn, M. K., I. V. Prokof'yev and A. Ye. Kalchugina. Use of Thiourea for the Concentration of Platinum Metals 15

Pashnitsyn, M. K. and M. V. Fedorenko. Use of Nitrogen Substituted Salts of Dithiocarbamic Acids for the Determination of Platinum Metals 23

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Y. FA, T. P.

18(6) PHASE I BOOK EXPLOITATION SOV/3199

Academy of Sciences, Institut obshchey i neorganicheskoy khimii  
Im. M. S. Kurnakova

Analiz blagorodnykh metallov (Analysis of Noble Metals) Moscow,  
1959. 193 p. Hirveta slip inserted. 2,700 copies printed.

Resp. Ed.: M. K. Pribludnyy, USSR Academy of Sciences, Corre-  
sponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical  
Sciences; Eds. of Publishing Houses: T. G. Levi, and D. N.  
Trifonov; Tech. Ed.: Y. N. Duseva.

PURPOSE: This collection of articles is for scientists engaged  
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CONTENTS: This is a collection of articles on the analysis of the  
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as well as reports presented by scientific research organizations  
and by industrial enterprises at the Third and Fourth Conference  
on Noble Metals held in 1954 and 1957, respectively. The  
studies and reports describe new organic reagents for gravi-  
metric determination of platinum metals, and physicochemical  
methods of analysis (spectrophotometric, polarographic and  
potentiometric). Special attention is given to spectral  
analysis for the determination of admixtures in alloys of  
platinum metals, silver, and gold, as well as in refined noble  
metals. The collection also includes analytical methods, tables  
and charts for materials containing metals of the platinum  
group, as well as a review of the literature on the analysis  
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personnel are mentioned. References follow each chapter.

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Chemical Composition of Binary Alloys by the Thermoelectro-  
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Au<sup>III</sup>/Au<sup>0</sup>, Au<sup>I</sup>/Au<sup>0</sup>, Au<sup>III</sup>/Au<sup>I</sup>, and Ag<sup>I</sup>/Ag<sup>0</sup> Systems 150

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YUFA, Ye.Ye.

Treatment of trichocephaliasis in children. *Pediatrics* no.6:36-38  
N-D '55. (MLRA 9:6)

1. Iz detskogo otdeleniya 1-y Sovetskoy bol'nitsy g. Bardicheva  
Zhitomirskoy oblasti (glavnyy vrach A.N. Kotel'nikov).

(TRICHOCEPHALIASIS, in inf. and child

ther., benzine enema)

(PETROLEUM PRODUCTS, ther. use

benzene enema in trichocephaliasis in child.)

~~YUPA, Ya-Ha.~~

Course of Botkin's disease concurrent with ascariasis in children.  
Med.paraz. 1 paraz.bel. 27 no.1:109 Ja-Y '58. (MIRA 11:4)  
(HEPATITIS, INFECTIOUS)  
(ASCARIDS AND ASCARIASIS)

YUFA, Ye.Ya.; SOKOLOVA, V.G.

Physical development of children under one year of age in  
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1. Iz detskoy konsul'tatsii (zav. Ye.Ya.Yufa) 4-go meditsinskogo  
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(GROWTH, in inf. & child,  
Russian standards (Rus))

YUFA, Ye.Ya. (L'vov)

Organization of the control of gastrointestinal diseases in a  
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(DIGESTIVE ORGANS—DISEASES)  
(GASTROENTEROLOGY)